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Europe and Security Issues in Space: The Institutional Setting

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In the current timeframe, the relevance of discussions on the existing use of space for national security purposes and the potential of it to be used for non-peaceful purposes are clearly increasing.¹ As a consequence, it becomes more important to address the role of Europe as a geopolitical, albeit far from monolithic, entity in this context.

From this perspective, the present paper analyzes some of the fundamental institutional parameters shaping the European presence in the space security domain, focusing on the two key players in space, which are truly European, the European Space Agency (ESA) and the European Union (EU).² Interestingly, the starting point for both entities was that the security domain was a “no-go” area, a starting point that only over the last two decades has begun to erode. That is why, in addition the Western European Union (WEU), Europe has a certain role in this context, precisely from

the security perspective rather than from the space perspective.³

Even the European Community, as the most tightly developed “pillar” of the EU, could not be considered a supranational entity let alone a federal state. In all cases therefore, the individual member states of those organizations are still relevant as players in their own right. These states continue to be essential to determining the shape of European actions and approaches in the field of space issues, and this is even truer for the security domain.

The resulting complicated institutional landscape represents the backdrop against which, as well as a set of crucial parameters within which, European policies in the area of space are developed. This applies to the space security domain, whether one takes a broad approach as with Space Situational Awareness (SSA) and the handling of space debris, or a more limited one, focusing on international terrorism or the handling of export controls over dual-use sensitive goods.⁴

¹Note that the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (hereafter, Outer Space Treaty or OST) only requires states to refrain from orbiting or otherwise placing weapons of mass destruction in orbit, as well as to undertake activities in exploring and using outer space “for the benefit and in the interests of all countries.” The phrase of “peaceful purposes” is only applied explicitly to the Moon and other celestial bodies.

²ESA was established by means of the *Convention for the Establishment of a European Space Agency* (hereafter, ESA Convention); and the EU, as an overarching institutional structure encompassing in particular the European Community, was established by the *Treaty on European Union*.

³The Western European Union was established by means of the *Treaty of Economic, Social, and Cultural Collaboration and Collective Self-Defense*, Brussels, entered into force 25 August 1948.

⁴See Frans von der Dunk, “A European “Equivalent” to United States Export Controls: European Law on the Control of International Trade in Dual-Use Space Technologies,” *Astropolitics* 7 (2009): 110.

The European Space Agency

The starting point for understanding the present and potential role of ESA in the wider context of European space security discussions is provided by the general institutional structure of the Agency. ESA, headquartered in Paris, France, but with additional establishments in a handful of other European countries, currently counts eighteen member states.⁵ Thus, it clearly constitutes an intergovernmental organization in the classical public international legal sense of the word.

Given the complexities of European integration, ESA has, as of yet, no formal relationship with the EU beyond a number of cooperative agreements, of which the Framework Agreement is the most generic and broad one.⁶ The Framework Agreement does establish a joint EU-ESA Space Council, but this Council's competences remain confined to "the coordination and facilitation of cooperative activities" under the Agreement, and thus present a forum for consultation and coordination of joint activities, not a means to impose such joint activities upon one or the other party.⁷ From the same perspective, the joint EU-ESA European Space Policy of April 2007 is a

political commitment to develop a coordinated policy, not for establishing legal obligations between the two parties regarding cooperation activities, either in general or in particular, and the high-level space policy group plays its role in exactly that context.

The Framework Agreement increased coordination and cooperation in policy matters and may well lead to the establishment of proper legal commitments of one party to the other, and/or official resignation of certain legal competences in deference to the other's competences at some point in the future. Presently, however, ESA is neither an agency of the EU nor legally subject to the extended legal regime developed on the basis of the European Community (EC) Treaty – and it does not even count the same European states as members – e.g., ESA member states Norway and Switzerland are not members of the EU and eleven EU member states as of yet are not member states of ESA.

ESA has two main organs. First, there is the Council, consisting of representatives of the sovereign member states, often at Ministerial level, and acting as the supreme body of the organization. The Council is tasked to lead: the annual work plans of the Agency; the annual general budget of the Agency; each program budget; the financial regulations and all other financial arrangements of the Agency; decisions on the admission of new member states; and all other measures necessary for the fulfillment of the purpose of the Agency within the framework of the ESA Convention.⁸ In other words, the Council, and thereby ESA, has not, at the highest level, the formal competence to draft space policies – it is only charged with "elaborating and implementing a long-term European space policy" by means of the exercise amongst

⁵The list of member states comprises: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom. In addition, non-European Canada is a long-standing cooperating partner under a special agreement, whereas Hungary, Romania, and Poland qualify as European Cooperating States under another special agreement.

⁶*Framework Agreement Between the European Community and the European Space Agency* (hereafter Framework Agreement), entered into force 28 May 2004. See further Stephen Hobe, *et al*, A New Chapter for Europe in Space," *Zeitschrift für Luft- und Weltraumrecht* I: 54 (2005): 342-344.

⁷Article 8(1), Framework Agreement. See also Article 2(1), providing for cooperation to take place "with due regard to their respective tasks and responsibilities;" Article 4(1), calling for "compliance with its own prerogatives, legal instruments, and procedures" of each party; and Article 5, detailing the way joint initiatives could be undertaken.

⁸See Article XI(5), ESA Convention.

others of such competencies as enumerated above.⁹

Second, the ESA Director General (DG) together with other ESA staff does not constitute a policy-making organ formally speaking. The DG is tasked to manage the Agency and execute any such programs “in accordance with the directives issued by the Council” as well as being entitled to submit proposals for future programs and projects.¹⁰ As to that latter competence, the actual impact the DG may have on the formulation of programs and projects, and perhaps informally and/or indirectly of policies, depends upon a number of interlocking factors of a non-legal nature. Yet that impact would be subject to confirmation and a form of high-level control by the Council as enshrined in the latter’s competencies and thus by ESA member states jointly.

ESA’s general aims and purposes are summarized by the ESA Convention “to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems.”¹¹ For good reason, ESA has often been described as a vehicle for member states to both serve their individual space policy needs, where applicable, and try and establish a European space policy. Formally speaking, as discussed, the Council in using its competencies decides more on programs and projects, even if at a high-level, and thus gives substance and shape to policies largely emanating at the member state level.

The key to further understanding the proper role of ESA in the shaping of European policies and regulations relevant to space security therefore lies in the way in which ESA space programs are developed. Program development, generally speaking, can be one of three kinds.

Firstly, there are the “mandatory activities,” in which all ESA member states are obligated to participate in. To approve a relevant proposal, to undertake an ESA program, and to establish it as a mandatory activity, a simple majority of the member states is required. However, the level of resources to be made available for that program requires unanimity, which allows individual states to exert considerable power on the overall process of making a program happen or not.¹²

Mandatory activities concern the execution of basic activities, such as education, documentation, studies of future projects, research work, and scientific programs including satellites and other space systems. To the extent follow-up activities on the ground are concerned, ESA should “collect relevant information and disseminate it to Member States, draw attention to gaps and duplication, and provide advice and assistance for the harmonization of international and national programs.”¹³ Further to the mandatory character of the participation of all member states in these scientific, non-space activities, the financing of such activities once properly agreed is taking place through a pre-determined scale of respective contributions.¹⁴

⁹Ibid., Article II(a).

¹⁰See Ibid., Article XII(1.b).

¹¹Ibid., Article II.

¹²See Ibid., Article XI(5.a), sub-paragraphs (i), (ii) and (iii).

¹³Ibid., Article V(1.a), sub-paragraphs (i), (ii) and (iii). See further Kevin Madders, *A New Force at a New Frontier: Europe’s Development in the Space Field of Its Main Actors, Policies, Law and Activities from its Beginnings up to the Present* (Cambridge University Press, 1997), 189, 223-235.

¹⁴See Ibid., Article XIII(1).

Secondly, ESA member states may agree on “optional activities” – again by a simple majority.¹⁵ The optional character then manifests itself by way of an opt-out clause, as it is provided that “all Member States participate apart from those that formally declare themselves not interested in participating therein.”¹⁶ This results in the clear possibility for a member state, if it considers it not to be in its own interests, including security interests, to abstain from participation in ESA optional activities.

Optional activities also result in a different schedule for financing. Whereas the formula here is an opt-out from the standard rule of financing in proportion to the average national income over the most recent three years for mandatory programs,¹⁷ in actual practice things turn out to work differently. Normally, individual member state contributions are decided from the ground up, i.e., each state promises as following from its own particular measure of interests in such activities to contribute a certain percentage to the proposed budget of a certain program. Once the proposed optional program reaches a certain threshold in terms of promised financing it is formally accepted as an ESA optional program.

Optional activities concern in particular the space programs, as opposed to preparation for them and their after-mission interpretation and usage: “the design, development, construction, launching, placing in orbit, and control of satellites and other space systems; and the design, development, construction, and operation of launch facilities and space transport systems.”¹⁸ Over the years, in

monetary terms, programs with an optional character have made up 80% to 85% of the activities developed by ESA itself, as opposed to 15% to 20% being mandatory in nature.¹⁹

Many of the details of how programs are developed and executed follow from what is labeled “the industrial policy which the Agency is to elaborate and apply” as part of the broader aims and objectives under Article II of the ESA Convention, and Annex V, which elaborates that generic industrial policy.²⁰

These cornerstones of ESA industrial policy are implemented by means of the “geographical distribution” approach, to “ensure that all Member States participate in an equitable manner, having regard to their financial contribution.”²¹ The result of that approach, further elaborated in Annex V to the ESA Convention, is often labeled “fair return,” “industrial return,” or “*juste retour*.” Under *juste retour*, each member state should roughly see its investment in a particular program “returned” in the form of contracts for its space industry, preferably for the very program at issue, in the alternative as compensated by contracts in other programs.²²

Beginnings up to the Present (Cambridge University Press, 1997), 189-195, 235.

¹⁹See Kevin Madders cited above, 189.

²⁰Ibid., Article VII(1).

²¹Ibid., Article VII(1.c).

²²See Ibid., Articles II, IV, and Annex V. While the ideal “overall return coefficient” [Article IV(3)] implies that every Euro contributed by a member state should be matched exactly by a Euro’s worth of contract value for a company from that member state under a contract by the Agency, there are a number of complicated arrangements in place to allow for considerable flexibility. See further Madders, 384-8. Moreover, due to pressure from the EU in recent years, which views this system with some suspicion, as it may easily have anti-competitive effects within the European market, the general application of the concept has become more relaxed still.

¹⁵See Ibid., Article XI(5.c), sub-paragraph (i).

¹⁶Ibid., Article V(1).

¹⁷See Ibid., Article XIII(2).

¹⁸Ibid., Article V(1.b). See further Kevin Madders, A New Force at a New Frontier: Europe’s Development in the Space Field of Its Main Actors, Policies, Law and Activities from its

The dichotomy between mandatory and optional activities has, throughout the decades of ESA operations, been shown to work as a remarkably pragmatic and workable compromise. It allows at the same time respect for the need for states to maintain their sovereign independence in choosing to contribute to and participate in actual space programs – on an *à la carte*-basis as it were – and serving the need for some coherence in ESA programs, in order for ESA to provide any added value in terms of real cooperation and an efficient pooling of resources.

The ESA Convention mentions a third category of activities, one not as such conjured up by or within the framework of the Agency itself, but undertaken upon the specific request of third parties, namely “operational activities.”²³ As a consequence, these activities are not financed by the normal budget of ESA, but paid for, in principle on a full-cost, not-for-profit basis,²⁴ by the state, organization, or entity requesting such services.²⁵

²³See *Ibid.*, Article V(2).

²⁴Such a monetary reimbursement could of course be (partially or completely) waived to the extent ESA considers other interests to merit the provision of such service without (full) reimbursement, and/or ESA considers itself *de facto* reimbursed by in-kind compensation. For example in the context of the International Space Station (ISS), it is common practice that the partners exchange services and goods as much as possible on a closed-purse, no-exchange-of-funds basis. See Article 15(5), *Agreement among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station*, Washington, entered into force 27 March 2001.

²⁵In the past, ESA has provided such services for individual states, other international organizations, such as the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), established by the *Convention for the Establishment of a European Organization for the Exploitation of Meteorological Satellites* entered into force 19 June 1986, as amended 14 July 1994, and entered into force 27 July 1994, and private companies, such as Arianespace.

ESA Involvement in Space Security Issues

While as of yet not addressing to any specific extent the actual or possible role of ESA in shaping European space security issues, in general terms, the possibility to become so involved at various levels depends on the interest of individual ESA member states. In particular, the major investors in ESA and ESA programs – France, Germany, Italy, the United Kingdom, and Spain – need to possess the political will and wherewithal in having ESA become so involved.

Article II of the ESA Convention underscores this point, stressing that ESA activities should be for “exclusively peaceful purposes.” To start with, the general discussion during the Cold War on the precise meaning of “peaceful purposes” is important to consider as this phrase was – with the same addition of “exclusively” – found in the outer space treaties.²⁶ Here, European states were inclined to occupy the middle ground between the liberal United States (U.S.) interpretation that peaceful purposes included military purposes as long as of a defensive nature and the stricter Soviet interpretation that any military use of outer space was prohibited under that concept.

The word “exclusively” constitutes an interesting addition here; *prima facie* it suggests that without that addition ESA would also be entitled to act not for peaceful purposes. If that were to be true, however, the phrase “peaceful purposes” without that addition would be devoid of any meaning – essentially stating that ESA would be entitled to conduct activities for peaceful purposes whilst leaving it open to also conduct non-

²⁶See Article IV, Outer Space Treaty, also Article XI referring to “peaceful exploration and use;” and Article 3(1), *Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (hereafter Moon Agreement), entered into force 11 July 1984.

peaceful activities, since the addition of “exclusive” would be considered necessary to close the door on the latter option.

In other words: the addition of “exclusively” does not effectively add anything to the legal obligation, and should rather be understood as a politically-driven confirmation of an obligation already existing as regard to “peaceful obligations,” to make sure no misunderstanding would arise on the scope of ESA’s activities. ESA did not wish to antagonize the U.S. by contradicting its liberal interpretation, yet at the same time was not willing to allow any uncertainty regarding the legal inability of ESA to get involved in military and security-related space projects. Copying the adverb “exclusively” from the space treaties and inserting it in the ESA Convention precisely achieved both results simultaneously.

Following the Framework Agreement, even as this agreement did not refer in any manner to space activities with a security, defense, and/or military component, ESA has gradually adopted a more liberal interpretation.²⁷ At least the word “security” is no longer taboo now: an ESA Security Agreement, ESA Security regulations, and an ESA Security office were established, as was an ESA security classification system with an “ESA Secret” label where handling of relevant classified information was moved from the member states to ESA itself.

But as ESA re-interpreted “peaceful purposes” in 2003 to mean it could unambiguously be involved in military and defense related security activities, the aforementioned institutional structure remains in operation. ESA programs could only become a reality

following a majority vote by the member states in the ESA Council on the program plus unanimity on the financing, and this would ensure that no ESA project would see the light of day unless member states were satisfied it would not unduly interfere with their sovereign security concerns, including compliance with their own understanding of “peaceful purposes.” Only with the projects of Galileo and Global Monitoring for Environment and Security (GMES) to be discussed below, that started to change fundamentally, due as well to the role of the EU with these projects – and then still only so far as those member states allowed.

Further to that, ESA from the beginning could not completely escape from the inevitable relationship between space activities and the issue of security. Satellite-based Earth observation can without difficulty encompass “spying,” the difference between launching a missile and launching a payload is often negligible from the technical perspective and the high-technology character and global scope of much of human spaceflight endeavors inevitably causes it to have important security angles. As such, the ESA framework has had to deal with security-sensitive aspects of its “exclusively peaceful” mandate.

For example, in deviation from the normal requirement to exchange data on programs, until the aforementioned recent establishment of an ESA Secret label, ESA member states were not required “to communicate any information obtained outside the Agency” if such communication would present a threat to its national security, would be inconsistent with its agreements with third parties, such as non-ESA partners in space cooperation ventures, or would be inconsistent with the terms and conditions under which it had

²⁷See European Space Agency Council, “Position Paper on ESA and the Defense Sector,” ESA/C 153 (1 December 2003): 7-8.

obtained the information at issue in the first place.²⁸

Along similar lines, a fundamental technology-transfer control limitation was built into the ESA Convention. If technology or products developed in the context of ESA activities are to be transferred to non-ESA member states, a special authorization regime to be adopted by a two-thirds majority of member states in the ESA Council is required, ensuring that such authorization will not be lightly provided.²⁹

In more general terms, not only the implementation of new programs, but also the admission of new member states to the Agency requires a unanimous vote in favor by the incumbent member states in the ESA Council.³⁰ This is a common provision in the charters of intergovernmental organizations, but in the present context it serves to scrutinize any potential new member from the perspective of security risks, since once such a state becomes a member it would be entitled to the default paradigm of free flow and exchange of relevant information on ESA programs, technology, and products.³¹ For similar reasons, unanimity in the ESA Council is required before ESA may cooperate and conclude relevant agreements with other intergovernmental organizations, non-EU governments, and other non-ESA member state institutions.³²

A final example of ESA's involvement in security issues concerns the development of the Ariane launcher. The single-most security-sensitive space sector is the production and operation of launch vehicles, in view of the

very thin lines among a vehicle for launching, an explosive payload against a terrestrial target, and a vehicle for delivering a peaceful payload in orbit. Not accidentally, this area was the first to be subject to international, albeit largely voluntary, arrangements – the Missile Technology Control Regime (MTCR)³³ – to try and curb the proliferation of relevant technologies outside the circle of former Western allies.

As long as the Ariane launcher development project was an (optional) ESA program, the exclusively peaceful requirement of Article II of the ESA Convention precluded any Ariane vehicle being used for military or other security-related missions, under the European interpretation discussed before. Once the Ariane vehicle, however, had achieved operational status, i.e., could start to be used for regular flights on a commercial basis, ESA had to outsource operational and marketing activities, as ESA was also limited by its Convention to research and development (R&D), even if those terms were sometimes stretched considerably.³⁴

In the case of Ariane, a separate private and commercial entity was established in 1980 called Arianespace.³⁵ Arianespace is a French company with international shareholding as well as ties with ESA and the ESA member states, but nevertheless operating on its own behalf in the emerging global commercial

²⁸ Article III(1), ESA Convention.

²⁹ See *Ibid.*, Article XI(5.j).

³⁰ See *Ibid.*, Articles XI(5.k), XXII.

³¹ See *Ibid.*, Article III *in extenso*.

³² See *Ibid.*, Article XIV(1).

³³ *Agreement on Guidelines for the Transfer of Equipment and Technology Related to Missiles* (hereafter MTCR), done 16 April 1987. Also, See Elisabeth S. Waldrop, "Integration of Military and Civilian Space Assets: Legal and National Security Implications," *Air Force Law Review* 55 (2004): 189-90; and Frans von der Dunk, "A European 'Equivalent' to United States Export Controls: European Law on the Control of International Trade in Dual-Use Space Technologies," *Astropolitics* 7 (2009). All current 18 ESA member states are among the 34 state parties of the MTCR.

³⁴ Article II, ESA Convention.

³⁵ *Statuts de la Société Arianespace* (Arianespace Statute), 26 March 1980.

launch services market. Its operations, however, from the international space law perspective, remained under control of the ESA member states, by way of a complicated international legal structure with three documents at the core: the Arianespace Declaration,³⁶ the Arianespace Convention,³⁷ and the *Centre Spatial Guyanais* (CSG) Agreement.³⁸ Under the first two documents, Arianespace is obliged to operate strictly for peaceful purposes.³⁹

Yet as a private French company, Arianespace remained under French governmental control. For example, prior to the MTCR, for the purpose of adhering to the Coordinating Committee on Multilateral Export Controls (CoCom) rules,⁴⁰ i.e., the North Atlantic

Treaty Organization (NATO) regime⁴¹ for controlling security-sensitive exports, Arianespace fell under French governmental control.

Thus, even the areas where the exclusively peaceful mandate for ESA could not as such avoid a possible entanglement in security or military issues, control mechanisms and procedures were in place. These mechanisms and procedures ensure that the potential threats to the security of individual member states emanating from such entanglement continue to be addressed without substantially infringing their sovereignty.

The European Union

The involvement in space and space policy issues, including space security, of the EU, as the successor at a political, if not completely at the legal level, of the European Community, stems from a completely different background compared to that of ESA. The Community, then Union became involved in European space activities and related policy issues primarily as a regulator, and has only recently become a player in its own right, even a policy-maker – but this remains a secondary role.

In spite of efforts to arrive at a European space policy,⁴² driven by the European Commission's perception that space is a key sector to the future of Europe, in this area (as

³⁶*Declaration by Certain European Governments Relating to the Ariane Launcher Production Phase* (hereafter Arianespace Declaration), entered into force 15 October 1981, renewal as of 4 October 1990, entered into force 21 May 1992.

³⁷*Convention between the European Space Agency and Arianespace* (hereafter Arianespace Convention), signed 24 September 1992.

³⁸Agreement between the French government and the European Space Agency with respect to the Centre Spatial Guyanais (CSG) (hereinafter CSG Agreement). See excerpts of French version in ESA Bulletin 80 (November 1994): 67.

³⁹See Articles I.1.2(a), I.1.6(a), Arianespace Declaration, ESA/C(80)8, 11 January 1980; Articles 6.1, 6.2, and 6.3, Arianespace Convention, ESA/C(80)WP/8, rev.4, 18 November 1980; further see John Kriger, Arturo Russo, and Lorenza Sebesta, *A History of the European Space Agency 1958-1987: Volume II: The Story of ESA, 1973 to 1987*, ESA History Study Reports, SP-1235 (ESA Publications, 2000); and Gabriel Lafferranderie and Harry Tuinder, "The Role of ESA in the Evolution of Space Law," *Journal of Space Law* 22 (1994): 103.

⁴⁰CoCom was established in 1949 as a joint organization of the member states of NATO, Japan, and Australia, to prevent the sale of weapons and technology to the Soviet Union and its communist allies. CoCom was disbanded in 1994, following the dissolution of the Soviet Union in 1991 and the concurring *de facto* end of the Cold War, which *inter alia* resulted in the opening up in principle of Russian and Eastern European markets. See Michael Lipson, "The Reincarnation of CoCom: Explaining Post-Cold War Export Controls," *The Non-Proliferation Review* 6 (1999): 33-51.

⁴¹NATO was established by the *North Atlantic Treaty*, entered into force 24 August 1949.

⁴²See White paper: Space: a new European frontier for an expanding Union – An action plan for implementing the European Space policy, COM(2003) 673 final, of 11 November 2003; Communication from the Commission to the Council and the European Parliament – European Space Policy – Preliminary Elements, COM(2005) 208 final, of 23 May 2005. See further Stephen Hobe, et al, "A New Chapter for Europe in Space," *Zeitschrift für Luft- und Weltraumrecht* I: 54 (2005): 340.

in many others) the ultimate prerogative of giving substantial shape to space policies by implementing actual programs and projects rests with the individual, sovereign member states. As referred to earlier, a joint Space Policy has been accepted recently, in 2007.

This is clearly only a first step for the EU, whereas the second, more important step of being in charge of implementing such a space policy, of being able to force unwilling or conflicting national authorities in terms of their own space policies, and of developing its own space projects on its own behalf, is only beginning to be undertaken with Galileo. Currently, the first contracts for building of the Galileo satellites and deployment of the system have been signed.

A distinct and partly supranational legal order has by now emerged, where in many instances the EU can in law override the interests, policies, and even legislation of individual member states, yet in the last resort all that is still based on a number of treaties between sovereign states. Together these treaties form a body of primary EU law, *inter alia* creating the main Union organs, officially referred to as: the Council (of Ministers),⁴³ the European Commission,⁴⁴ the European Parliament,⁴⁵ the European Court of Justice,⁴⁶ and most recently augmented by a European Council comprised of heads of state and government entitled to develop policies – but based on consensus, and without being formally entitled to guide

follow-on legislative measures.⁴⁷ The treaties also provided these organs with extensive legal competences, which they then used to jointly extend the scope of EU law immensely – by drafting and enunciating what is commonly called “secondary EU law.”

Secondary EU law is composed of Regulations, Directives, and Decisions.⁴⁸ Regulations are essentially laws on a European level: they are phrased in general terms and apply comprehensively, at least as far as indicated or expressly provided for by the Regulations themselves. The same qualification as law applies to Directives to some extent, namely as far as the required end result is concerned: each state is free, however, to reach that end result in whatever way it sees fit, prior to a given deadline. Finally, Decisions also provide binding law, but only upon those entities to which they are explicitly or implicitly directed. In each case, they would override, wherever applicable, national law or regulation to the contrary.

At the same time, they are strictly legal instruments, designed and only to be used to implement and enforce higher-level policies, policy interests, and approaches as agreed by the EU with the Council, representing the interests of the individual member states, generally in a key role, not to develop and determine them. Not even the Treaty of Lisbon, the successor of the ill-fated effort to achieve a Constitution for Europe,⁴⁹ which had been hailed as the first document providing the EU with formal competence in matters of space and space activities, was to fundamentally change this situation. In consequence, the Union still pools together the

⁴³See Articles 227-243, Treaty Establishing the European Community as Amended by the Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community (hereafter Treaty on the Functioning of the European Union), entered into force 1 December 2009.

⁴⁴See Articles 244-250, Treaty on the Functioning of the European Union.

⁴⁵See Ibid., Articles 223-234.

⁴⁶See Ibid., Articles 251-281: meanwhile renamed Court of Justice of the European Union.

⁴⁷Ibid., Articles 235-236: see Articles 13(1), 15, Treaty on European Union as amended by the Treaty of Lisbon.

⁴⁸See Ibid., Article 288.

⁴⁹*Treaty Establishing a Constitution for Europe*, Rome, done 29 October 2004 and not entered into force.

regulatory efforts of the member states for specific purposes indicated in the relevant treaties and essentially limited to those – even as it established its own distinct legal order; a *sui generis*-construction, which may be referred to as a supranational “half-way house” between an international organization and a federation-like structure. At present, twenty-seven European states⁵⁰ have thus subjected themselves to a very extensive set of rights and obligations towards each other in the framework of the EU. As pointed out, this concerned a group of European states different from those interested in space and investing therein to become member of ESA.

The European legal framework was initially built through signature and ratification of the European Coal and Steel Community (ECSC) Treaty,⁵¹ the European Atomic Energy Community (EAEC) or Euratom Treaty,⁵² and the European Economic Community (EEC) Treaty⁵³ all in the 1950s, as duly amended by subsequent treaties in later years. Such treaties included, in addition to the various accession treaties allowing for new member states to join the EC, then Union, the Single European Act of 1986,⁵⁴ the Treaty on European Union of 1992,⁵⁵ the Treaty of Amsterdam of 1997,⁵⁶

the Treaty of Nice of 2001,⁵⁷ and the Treaty of Lisbon of 2007. Of these, as we shall see for our space related topic, the Treaty on European Union and the Treaty of Lisbon are the most important.

The European Union Legal Framework, Economic Activities, and Outer Space

The essential elements of the Union’s legal order referred to above present the EU with its own measure of competencies and jurisdiction – over a wide range of economic or economy-related activities. Depending upon certain circumstances and legal preconditions, they can be directly applied not only to the member states themselves, but also to private persons and entities resorting under the domestic jurisdictions of these member states. In addition, in a number of cases the rights and obligations directly applicable to individual citizens and legal entities can also be claimed directly by those entities. Bypassing domestic jurisdictions of member states, the Court of Justice can be called upon in a number of instances by those concerned to judge upon the legality of EU as well as national actions. The existence of this body central to the EU legal order represents an essential measure of supranational adjudication.

As such, to what extent do the Union and its legal framework affect the space sector? Special as space is and distinct from and outside specific member state involvement, how would or could the EU expand such

⁵⁰The list of member states comprises: Austria, Belgium, Bulgaria, the Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

⁵¹Treaty Establishing the European Coal and Steel Community, entered into force 23 July 1952.

⁵²Treaty Establishing the European Atomic Energy Community, entered into force 1 January 1958.

⁵³Treaty of Rome, or *Treaty Establishing the European Economic Community* (hereafter EEC Treaty), entered into force 1 January 1958.

⁵⁴Single European Act, entered into force 1 July 1987. One major result of the Single European Act was the integration of the main institutions of the Communities concerned, in particular the European Commission and the Council of Ministers.

⁵⁵Treaty on European Union, entered into force 1 November 1993.

⁵⁶Treaty of Amsterdam Amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts (hereafter Treaty of Amsterdam), entered into force 1 May 1999.

⁵⁷Treaty of Nice Amending the Treaty on European Union, the Treaties Establishing the European Communities and Certain Related Acts (hereafter Treaty of Nice), entered into force 1 February 2003.

impact to the extent considered necessary for the European greater common good?

The answers to these questions lie in understanding how the aforementioned competencies and jurisdictions are applied to concrete issues – the application has to be made by explicit primary EU law, secondary EU law (much more common), or from EU law no other conclusion can be drawn other than such applicability was implied. This is captured by the notion of “subsidiarity,”⁵⁸ which means that unless the competence to legislate on a certain issue has unequivocally, even if only implicitly, been transferred to the Union’s organs the relevant power should still be deemed to rest with the national governmental authorities. If doubt arises whether an issue could be regulated more effectively and logically at the European level or at the national level, the presumption under subsidiarity is that the national level should prevail.

In practice, only to the extent that space-related activities are unequivocally covered by provisions in primary or secondary EU law, can any competence to legislate with respect to them be exercised by EU organs. Space activities, however, only constitute one among many topics from the Union’s perspective. Hence, they were hardly mentioned explicitly in primary EU law and not in any appreciable detail in secondary law. As we shall see, space has only recently achieved some presence and prominence in that context.⁵⁹ Concomitantly,

EU competencies and jurisdiction have been generally acknowledged in the economic domain, applying to all economic activities proper, i.e., without overriding public interests, such as those relating to military, social, or cultural issues being behind those economic activities. Consequently, space activities do at least fall within the EU legal order to the extent that they may be considered economic activities.

From such a perspective, the general application of EU law to economic activities is the main instrument for Union involvement in the space sector so far. Here, the central and most comprehensive aim of EU economic integration is the creation and maintenance of a common market.⁶⁰ Effectively, the Internal Market, being one side of the common market, was established as of 1993 following the entry into force of the Treaty on European Union.⁶¹ This regime, in turn, is based upon several freedoms: the freedoms of movement of goods, persons, services, and capital;⁶² an anti-trust regime combating anti-competitive behavior of governments (state aid) and companies (collusive conduct and abuses of dominant positions) alike;⁶³ and harmonization of relevant national legislation.⁶⁴

Turning back to space activities from the perspective of how policies take shape within the EU, the Union’s organs, in particular the Commission, have over time obtained some freedom to draft, or at least prepare, European

⁵⁸Articles 5(1) and 5(3), *Treaty on European Union as Amended by the Treaty of Lisbon*. The latter thus extended the scope of application of the subsidiarity principle from the Community’s actions (where it applied since 1993 under Article 5, EC Treaty as amended by the Treaty on European Union) to all actions taken in the name of the Union.

⁵⁹For an excellent recent account of EU involvement in European space activities, see Ingrid Marboe, “National Space Legislation: The European Perspective,” *Nationales Weltraumrecht – National Space Law* (2008), 31-46; Further, see Kevin Madders, *A New Force at a New Frontier:*

Europe’s Development in the Space Field of Its Main Actors, Policies, Law and Activities from its Beginnings up to the Present (Cambridge University Press, 1997), 566-584.

⁶⁰See Articles 3, 4(2.a), Treaty on the Functioning of the European Union.

⁶¹Articles 13-19, Single European Act.

⁶²See Articles 28-37, 45-66, Treaty on the Functioning of the European Union.

⁶³See *Ibid.*, Articles 101-109.

⁶⁴See *Ibid.*, Articles 114-118.

policies, through such varying non-binding instruments as Resolutions, White Papers, and Green Papers.⁶⁵ Yet, even with the 2007 EU-ESA Space Policy the boundaries of that freedom are always those provided by the body of EU law, and the political will of the totality of EU member states to use their prerogatives, in particular through the Council, to allow any such policy initiative, to condition or control it, or even to obstruct it. Certainly, once a policy initiative is translated into new EU law, the Council of Ministers in its interplay with the Commission, the European Parliament, and the Court of Justice are able to control such a process to a large extent.⁶⁶

European Union Involvement in Security Issues

It should not be a surprise that as a consequence of the above discussion, at least until as recently as two decades ago, the European organs were given very little room to address military, defense, and security issues, whether specifically in terms of space or more generally speaking. Although the EC, then Union, as indicated originated in a

completely different context and for rather different purposes than ESA, essentially the same limitations to EC/EU action in the field of security followed from the established aims of its activities and institutional structure. As to the former, the aims of the EC were summed up exhaustively in the aforementioned Article 2 of the EC Treaty, which throughout history has been updated to take into account new developments requiring a European-level competence – and so far had always excluded a reference to military, defense, and security issues. The only conclusion can be that this domain as a generic area has not yet been included within the EU competence.⁶⁷ Only with the Treaty of Lisbon that has changed to some extent, as we shall see.

Even though the European Commission as a truly European organ has in principle the right to initiate policy and legislative developments, and the European Parliament as another truly European organ has considerable competence

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in both as well, at the end of the day this supranational competence only extends precisely to those domains falling within the EU sphere as determined, until very recently, by Article 2 of the EC Treaty. Extending the scope of that sphere in any formal sense requires the consent

of the Council of Ministers representing the

⁶⁵The earliest such document relevant for space activities was "Towards Europe-wide systems and services" – Green Paper on a common approach in the field of satellite communications in the European Community, Communication from the Commission, COM(90) 490 final, of 20 November 1990. For further discussion of the development of an EU-driven space policy, see Gunther Verheugen, "Europe's space plans and opportunities for cooperation," *Space Policy* 21 (2005), 93-95; Thomas Reuter, "The Framework Agreement between the European Space Agency and the European Community: A Significant Step Forward?," *Zeitschrift für Luft- und Weltraumrecht* 53 (2004), 56-65; Kevin Madders and Walter Thiebaut, "Carpe diem: Europe must make a genuine space policy now," *Space Policy* 23 (2007): 7-12; and Nicolas Peter, "The EU's emergent space diplomacy," *Space Policy* 23 (2007): 97-107.

⁶⁶See Articles 293-294, Treaty on the Functioning of the European Union, providing the basis for the complicated decision-making processes formally applicable to the development of EC law.

⁶⁷Note that the aforementioned subsidiarity principle specifically calls for either explicit or implicit (but then from a logical perspective irrefutable) transfer of competence to the EC/EU level, as argued on the basis of subsidiarity before such competence may be assumed.

member states, or in cases of fundamental enlargement of EU competence even new treaties.

From the perspective of security issues, the point of departure for European entities was the fundamental lack of reference to competencies in that area until fairly recently. Security being so closely related to questions of state sovereignty, the fact remains that in the last resort the sheer survival of the state as a relevant entity is at stake, and in spite of the long history of political, economic, social, and cultural integration since the Second World War European member states have not been willing to subject themselves in any fundamental sense to a supranational entity. Cooperation on military and security issues, and the conduct of joint military exercises does take place, but ultimately, Europe states still preferred to rely on themselves for national security.

Over the last two decades, however, partly as a consequence of the end of the Cold War, the demise of the Soviet Union, and the fundamental reshaping of the geopolitical landscape, the perspective on European security started to change. The undeniable success of the EU in economic terms – 500 million inhabitants constituting the largest single economic block in the world – strengthened European self-consciousness about a major role for Europe also in the geopolitical arena. At the same time, the lack of political and security-related coherence has become painfully clear, in particular in the context of the demise of Yugoslavia and the ensuing civil wars, where only NATO and the U.S. turned out to be able to restore some measure of peace, and essentially by sheer military force.

The ambitions of the EC thus started to address the involvement of Europe in such security domains, and it started to move

carefully into that direction, and as it turned out in some respects taking ESA along to the extent these ambitions involved, or were focusing on, outer space and space activities. Essentially, the EC took a three-pronged, staged approach: firstly, by transforming itself formally into a EU; secondly, by starting to address in earnest the issue of international trade in security-sensitive goods and technology; and thirdly, by undertaking space projects jointly with ESA that inevitably touched upon the security domain.

European Union Entrance into the Space Security Arena

The renaming of the Community as the Union in-and-of-itself was an expression of the ambition of the member states, and of the European institutions, most prominently the Commission, to broaden European integration beyond the more economically-oriented domains. More to the point, the Treaty on European Union effectively did extend the scope of European integration as it had arisen on the basis of the three treaties of the 1950s, re-christening the EEC Treaty as the EC Treaty, and by adding two more “pillars” of the EU to the three Communities that had been merged into one Community (those pillars of the Common Foreign and Security Policy (CFSP) and of Police and Judicial Cooperation in Criminal Matters (PJCCM) respectively).⁶⁸

Of course, it is the CFSP pillar, which concerns us here, established by means of Articles 10A through 28 of the Treaty on

⁶⁸The first pillar was now that of the European Community, based not only the EC Treaty (Title II, Treaty on European Union), but also on the ECSC and EAEC Treaties (Titles III, resp. IV, Treaty on European Union). For the second, CFSP pillar, see Title V, Treaty on European Union; for the third, PJCCM pillar (originally labeled Justice and Home Affairs (JHA)), see Title VI, Treaty on European Union.

European Union.⁶⁹ This is where, with the entry into force of the Treaty on European Union in 1993, for the first time as far as the EC/EU framework was concerned, issues of security – the use of the words “defense” and “military” were still judiciously avoided – could be addressed. At least the word “security” is prominently present in the text now.

The CFSP, however, is a straightforward intergovernmental construction and operates completely outside the established legal structure of the Union with its supranational features. There is at best a marginal role for the European Commission in its context as supposed guardian of the overarching European interest. For example, the Commission “may refer to the Council

any question relating to the common foreign and security policy and may submit proposals to the Council” as well as request the convening of an extraordinary Council meeting.⁷⁰ As a consequence of the Treaty of Lisbon, the role of the Commission to “give its opinion particularly on whether the enhanced cooperation proposed [by EU member states] is consistent with Union policies”⁷¹ may have been relocated to the

...gradually, the European institutions...as compared to the group of sovereign states making up EU membership, are involving themselves in issues of security...

Treaty on the Functioning of the European Union; it was not changed fundamentally.⁷² Yet in principle, “Decisions under this Title shall be taken by the Council acting unanimously” and there is no formal entitlement for the Commission to anything other than being kept informed and allowed to offer its opinion.⁷³

As a result, there also was no role for the elaborate legislative, adjudicative, and enforcement jurisdiction of the European Parliament or the Court of Justice, which was developed in the context of the EC Treaty. The European Parliament, for instance, can make itself heard on similar terms as the Commission, but does not have any formal say in the outcome of whatever legally binding decisions would result from the deliberation process. Even post-Lisbon, the cooperation under the CFSP is essentially cooperation between the member states with the Commission in an unofficial mediating role except where the existing *acquis communautaire* (the total body of EU law accumulated thus far) is threatened. Those issues remain exclusively reserved for national governments to deal with as they see fit to the extent beyond having allowed for such concepts as the European Security and Defense Policy (ESDP), now Common Security and Defense Policy (CSDP), and EU Battle Groups to be developed.⁷⁴

As referred to before, security at the European level has had distinct historical roots. To start, international cooperation in the areas of defense and security had always been dealt

⁶⁹Note that the Treaty of Lisbon amended also the Treaty on European Union, so that in the consolidated version of the latter as per 1 December 2009, Title V now comprises Articles 21–46.

⁷⁰Article 30(1), see also (2), Treaty on European Union as amended by the Treaty of Lisbon.

⁷¹Article 27c, Treaty on European Union, as inserted by the Treaty of Nice.

⁷²See Article 329(2), Treaty on the Functioning of the European Union.

⁷³Article 31(1), Treaty on European Union as Amended by the Treaty of Lisbon.

⁷⁴See Articles 326–334, Treaty on the Functioning of the European Union. For example, the CSDP is the domain of the Council of the European Union, representing the member states under the Lisbon Treaty, not the European Commission.

with in the context of NATO or the WEU. As a consequence of the shifting paradigms, the WEU is now being integrated into the EU structures as part of the intergovernmental CFSP. That integration turns out to be a slow process. It started in 1999 with a first level of integration of WEU functions into the EU framework, and has meanwhile led to the handing over of the WEU satellite center at Torrejon, Spain to become the EU Satellite Center, jointly with a European Institute of Security Studies in 2002. Yet these transfers have not been finalized – and some doubt whether such integration will be ever complete.⁷⁵ The integration described here does not *ipso facto* subsume the WEU within the EU's institutional structures.

Prior to the Treaty of Lisbon, the Treaty on European Union referred to the role of the WEU in somewhat ambiguous terms. Security policies in the context of the CFSP pillar “shall not prevent the development of closer cooperation between two or more Member States on a bilateral level, in the framework of the Western European Union (WEU) and NATO, provided such cooperation does not run counter to or impede that provided for” through the CFSP.⁷⁶ The clauses that have replaced this one as per the Treaty of Lisbon do not mention the WEU in any specific terms and as a consequence of dealing with essentially the same subject matter might be argued to have effectively emptied the WEU of all meaning. Yet any implementation thereof still hinges crucially on member state agreement to any substantive implementation of the common and foreign security policy in

the specific military domain, the erstwhile main focus of the WEU.⁷⁷

In short, in this institutional domain of European involvement in space security, slowly but gradually, the European institutions properly speaking, as compared to the group of sovereign states making up EU membership, are involving themselves in issues of security in a broad sense. It seems inevitable that this process increasingly will also involve more clearly outlined military and defense issues.

The European Union and the Trade Aspects of Security

The second inroad the Union started to make into the realm of security concerns the risks inherent in today's voluminous global trade relations. These risks deal with proliferation of security-sensitive dual-use goods, technology, and know-how to states or non-state entities that would result in harming European interests.

In a sense, this was the most logical and obvious starting point for the Community/Union to get involved with the security domain, as international trade and the potentially trade-distorting impact thereof on the EC Internal Market had belonged to the EC's competencies for a considerable time. And indeed, already long before the establishment of the EU and the CFSP pillar, the Community had drafted a first legislative document on export controls, the 1969 Regulation 2603/69.⁷⁸

⁷⁵See Ralph Folsom, *Principles of European Union Law* (2005), 25. Formally, the WEU still is its own intergovernmental self, though now essentially dormant; the entry into force of the Treaty of Lisbon has not yet led to decisions to disband the WEU.

⁷⁶Article 17, Treaty on European Union as Amended by the Treaty of Nice.

⁷⁷See Articles 42 and forward, Treaty on European Union as Amended by the Treaty of Lisbon, *inter alia* also providing for an (in legal terms equally limited) role of the European Defense Agency.

⁷⁸Regulation of the Council establishing common rules for exports, (EEC) No. 2603/69, of 20 December 1969.

These developments were given a considerable boost by several developments in the 1990s. First, there was the aforementioned creation of the Union and the CFSP – leading to such further EC law as Regulation 3381/94⁷⁹ and Decision 94/942/CFSP⁸⁰ drafted under the Treaty on European Union, even as these documents were far from comprehensive in scope. Second, the changing geopolitical landscape caused the aforementioned CoCom/MTCR-regime⁸¹ to be widened in scope, most notably leading to the establishment of the Wassenaar Arrangement⁸² encompassing all dual-use sensitive technologies and related products and know-how in the mid-1990s. Third, the limited progress, as compared to the ambitions of the then-Commission, of development of European security policy, including but not limited to space, in terms of a European Space Strategy on the basis of the CFSP made the European institutions more aware of the limited areas where progress could more easily and readily be expected, namely international security and international trade.

The result was of all this was Regulation 1334/2000⁸³ providing a baseline framework for implementing in a binding European context the international obligations resulting

from the formally non-binding MTCR and Wassenaar regimes, while working towards a harmonization of the ways and means by which individual member states would implement and apply those international obligations and guidelines.⁸⁴ As the Regulation itself phrases it: its aims are to develop an “effective common system of export controls on dual-use items [which] is necessary to ensure... the international commitments and responsibilities of the Member States, especially regarding non-proliferation, and of the European Union,” through “a common control system and harmonized policies for enforcement and monitoring” as “a prerequisite for establishing the free movement of dual-use items inside the Community” – the most fundamental justification for EU institutions to address the issue of international trade in dual-use goods.⁸⁵

The Regulation itself has been amended on average almost once a year since by later instruments of EC law,⁸⁶ but still remains the

⁷⁹Council Regulation setting up a Community regime for the control of exports of dual-use goods, No. 3381/94/EC, of 19 December 1994.

⁸⁰Council Decision on the joint action adopted by the Council of the basis of Article J.3 of the Treaty on European Union concerning the control of exports of dual-use goods, 94/942/CFSP, of 19 December 1994.

⁸¹Currently, 19 out of the 27 EU member states – Cyprus, Estonia, Latvia, Lithuania, Malta, Romania, Slovakia and Slovenia are missing – are participating in the MTCR.

⁸²*Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies* (hereafter Wassenaar Arrangement), effective 12 July 1996. Currently, 26 out of the 27 EU member states – only Cyprus is missing – as well as all 18 ESA member states are participating in the Arrangement.

⁸³Council Regulation setting up a Community regime for the control of exports of dual-use items and technology, No. 1334/2000/EC, of 22 June 2000.

⁸⁴An extended analysis of Regulation 1334/2000 and the framework built upon it can be found in Frans von der Dunk, “A European “Equivalent” to United States Export Controls: European Law on the Control of International Trade in Dual-Use Space Technologies,” *Astropolitics* 7 (2009): 110-124.

⁸⁵See Paragraphs (2), (3), Preamble, Regulation 1334/2000, and Article 1.

⁸⁶This concerns Council Regulation amending Regulation (EC) No. 1334/2000 with regard to intra-Community transfers and exports of dual-use items and technology, No. 2889/2000/EC, of 22 December 2000; Council Regulation amending Regulation (EC) No. 1334/2000 with regard to the list of controlled dual-use items and technology when exported, No. 458/2001/EC, of 6 March 2001; Council Regulation amending and updating Regulation (EC) No. 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 2432/2001/EC, of 20 November 2001; Council Regulation amending Regulation (EC) No. 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 880/2002/EC, of 27 May 2002; Council Regulation amending and updating Regulation (EC) No. 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 149/2003/EC, of 27 January 2003; Council Regulation amending and updating Regulation (EC) No. 1334/2000 setting up a

key document in the present context. Its main body provides for the basic regime whereas the Annexes, through their regular updates, take account of new developments regarding the subject matter itself as following *inter alia* from the Wassenaar Arrangement updates. In particular, Annex I entitled “List of Dual-Use Items and Technology,” and thereby listing all items subject to the regime created by the Regulation, was amended time and again to keep track of ongoing technical, practical, and political developments.⁸⁷

Dual-use items as covered by the Regulation’s regime are broadly defined as all “items, including software and technology, which can be used for both civil and military purposes,”⁸⁸ whereas export comprises normal export of goods, but extends to “transmission of software or technology by electronic media, fax, or telephone to a destination outside the Community,”⁸⁹ and “exporter” is equally broadly defined.⁹⁰ Since such a definition of dual-use items clearly could encompass more or less all space technology, the broad sweep *ratione materiae* of the European regime in terms of space activities becomes clear immediately.

Community regime for the control of exports of dual-use items and technology, No. 1504/2004/EC, of 19 July 2004; Council Regulation amending and updating Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 394/2006/EC, of 27 February 2006; Council Regulation amending and updating Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 1183/2007/EC, of 18 September 2007; and Council Regulation amending and updating Regulation (EC) No 1334/2000 setting up a Community regime for the control of exports of dual-use items and technology, No. 1167/2008/EC, of 24 October 2008.

⁸⁷Annex I, Regulation 1167/2008; further see Article 3, Regulation 1334/2000.

⁸⁸Article 2(a), Regulation 1334/2000.

⁸⁹Ibid., Article 2(b), sub-paragraph (iii).

⁹⁰See Ibid., Article 2(c).

Technology itself is also defined in such broad terms, albeit not in the main body of the Regulation itself, but by Annex I: “specific information necessary for the ‘development,’ ‘production,’ or ‘use’ of goods” further elaborated in that “this information takes the form of ‘technical data’ or ‘technical assistance,’” whereby the latter “may take forms, such as instructions, skills, training, working knowledge, and consulting services and may involve the transfer of ‘technical data,’” and these may in turn “take forms, such as blueprints, plans, diagrams, models, formulae, tables, engineering designs and specifications, manuals and instructions written or recorded on other media, or devices, such as disk, tape, read-only memories.”⁹¹

The core element of the regime developed on the basis of the Regulation concerns the authorization process and procedures, which remains a prerogative of the EU member states, but should conform to the parameters as provided by the Regulation’s regime. The point of departure, in any event, still is national authorization.

Firstly, such an authorization is required for export of the dual-use items as defined and listed in Annex I.⁹² Secondly, the obligations of a prospective exporter are not limited to screening an exhaustive list and then abiding by its terms, as there are scenarios under which an exporter would be obliged to comply with the control and authorization mechanisms provided by the Regulation, also where the items concerned as such are not listed in Annex I.⁹³

⁹¹Annex I, Regulation 1167/2008.

⁹²See Article 3(1), Regulation 1334/2000; and introductory paragraph, Annex I – List of Dual-Use Items and Technology, Regulation 1167/2008.

⁹³The three scenarios concern: (1) potential involvement of the item concerned in the context of weapons of mass destruction; (2) export to a state subject to an arms embargo imposed by the European Union, the Organization for

As national sovereignty of member states is still the baseline, the Regulation does not take away the possibility for a prospective exporter to be confronted with requirements for authorizations imposed by member states under national laws and regulations outside of the system of the Regulation properly speaking.⁹⁴ In such cases, the Regulation only imposes upon the member state adopting or maintaining relevant legislation a duty to inform other member states as well as the Commission.⁹⁵

With regard to these national authorization regimes, the Regulation only further imposes the requirement that they should allow for three types of authorizations: individual, global, or general, with the latter being valid throughout the Community.⁹⁶ While leaving the choice to the national member state authorities regarding which type of authorization to use in a certain case, a few specific limits are imposed by the Regulation in that regard.⁹⁷

Next to that, as the cornerstone of actual harmonization, the Regulation introduces the concept of the Community General Export Authorization (CGEA).⁹⁸ The CGEA explicitly constitutes an exception to the sovereign discretion of member states as for all items not covered by it; any authorization

shall be granted – or refused – by the member state where the exporter is located.⁹⁹

The CGEA's scope is essentially limited in three ways. One, *ratione materiae* only items as defined by Annex II – with the exception moreover of those mentioned in Part 2 thereof – require a CGEA as opposed to a national authorization, which still covers the bulk of items listed in Annex I.¹⁰⁰ Two, however, *ratione personae* the CGEA covers such exports only to the extent the target destination is Australia, Canada, Japan, New Zealand, Norway, Switzerland, or the U.S.¹⁰¹ Three, further exceptions to applicability of the CGEA occur in more limited scenarios.¹⁰²

Thus, Regulation 1334/2000 in conjunction with follow-up Regulations created a complex interlocking system of European-wide and national authorizations. That system required European-wide authorizations instead of national ones in varying measures for the export of the items listed in a few interlocking Annexes to other EU member states, a limited set of close political allies of other states and destinations, otherwise leaving the individual sovereign discretion of the member states intact.

Nevertheless, presenting a kind of European equivalent to U.S. export controls, the Regulation and the regime built upon it

Security and Cooperation in Europe (OSCE) or the United Nations Security Council; and (3) export without national authorization or in violation of a national authorization; see Articles 3(2), 4(1), (2), (3), and (4), Regulation 1334/2000.

⁹⁴Article 4(5), Regulation 1334/2000.

⁹⁵See *Ibid.*, Article 4(6).

⁹⁶See *Ibid.*, Article 6(2).

⁹⁷See further Frans von der Dunk, "A European "Equivalent" to United States Export Controls: European Law on the Control of International Trade in Dual-Use Space Technologies," *Astropolitics* 7 (2009): 122-4.

⁹⁸See Article 6(1), Regulation 1334/2000.

⁹⁹*Ibid.*, Article 6(2).

¹⁰⁰See Annex II, Regulation 1167/2008; Part 1 of Annex II simply provides in full "This export authorization covers the following items: All dual-use specified in any entry in Annex I of the present Regulation except those listed in Part 2 below."

¹⁰¹See *Ibid.*, Part 3.

¹⁰²See *Ibid.*, Articles 1, 2, and 3, Annex II. These three scenarios concern: (1) (once again): potential involvement of the item concerned in the context of weapons of mass destruction; (2) (once again) export to a state subject to an arms embargo imposed by the European Union, the OSCE, or the United Nations Security Council; and (3) where the relevant items are to be exported to a destination within a customs free zone or free warehouse.

represents a careful, detailed, and politically noteworthy foray of the EU into the security domain, including space security in view of the inherent dual-use of most space activities, hardware, and technology. The establishment of the European Defence Agency (EDA) in 2004¹⁰³ may also turn out to contribute to further fundamental EU inroads in legal and political terms in the European security domain, albeit that Agency falls under the competencies specifically of the Council of the European Union, not of the Commission.

As with the development of the CFSP pillar, this development took place without the involvement of ESA – although ESA’s role in the European space endeavour under the Regulation’s regime was recognized to the extent that export controls on launchers and launch-related items otherwise applicable would essentially be waived for items “that are transferred on the basis of orders pursuant to a contractual relationship placed by the European Space Agency (ESA) or that are transferred by ESA to accomplish its official tasks” or “that are transferred to a State-controlled space launching site in the territory of a Member State, unless that Member State controls such transfers within the terms of this Regulation” – noting here that European launches usually take place from Kourou, French Guyana, which is French territory.¹⁰⁴

European Union - European Space Agency Cooperation

The most recent angle from which the EU, this time in close cooperation with ESA, was venturing into the space domain, was the

development of two European “flagship projects,” Galileo and GMES. Both concerned major programs aiming at launching and operating a system of satellites as the core part of an infrastructure to be used for practical downstream terrestrial applications. It may be added that perhaps soon a third project is to follow, i.e., the joint development of European SSA capabilities, which will also have a substantial, and probably even more profound impact on security issues in space for Europe.

Galileo, initiated by the European Commission, is the second-generation, European-owned and European-operated global satellite navigation system currently being developed to be operational by 2013.¹⁰⁵ Its key features, as compared with the currently operational satellite navigation systems, the U.S. Global Positioning System (GPS) and the Russian GLONASS (Global Navigation Satellite System), have been listed as being an internationally-operated system controlled by civilians and providing for 27, plus three spare, satellites in medium Earth orbits (MEO). The satellite signals should be augmented world-wide and should be

¹⁰³See Council Joint Action 2004/551/CFSP of 12 July 2004 on the establishment of the European Defense Agency; also, see Article 42(3), Treaty on European Union as Amended by the Treaty of Lisbon.

¹⁰⁴Part I, Annex IV, Regulation 1167/2008, sub-paragraph (1) resp. (4).

¹⁰⁵Council Resolution on the European Contribution to the Development of a Global Navigation Satellite System (GNSS), of 19 December 1994; Communication from the Commission to the Council and the European Parliament – Towards a Trans-European Positioning and Navigation Network: including A European Strategy for Global Navigation Satellite Systems (GNSS), COM(1998) 29 final, of 21 January 1998; Galileo – Involving Europe in a New Generation of Satellite Navigation Services, of 10 February 1999, COM(1999) 54 final; Council Resolution on the involvement of Europe in a new generation of satellite navigation services – Galileo-Definition phase, of 19 July 1999; Commission Communication to the European Parliament and the Council – On GALILEO, of 22 November 2000, COM(2000) 750 final; Council Regulation setting up the Galileo Joint Undertaking, No. 876/2002/EC, of 21 May 2002; Council Regulation on the establishment of structures for the management of the European satellite radio-navigation programs, No. 1321/2004/EC, of 12 July 2004; and Regulation of the European Parliament and of the Council on the further implementation of the European satellite navigation programs (EGNOS and Galileo); No. 683/2008/EC, of 9 July 2008.

available in principle for usage by many transport as well as non-transport applications. These satellites should furthermore provide, apart from an Open Service similar to GPS and GLONASS Open Services, three types of enhanced services, for which users one way or another would have to pay, of which the Public Regulated Service (PRS) is of importance for the current discussion, plus search and rescue services additional to the existing COSPAS-SARSAT Program [International Satellite System for Search and Rescue].¹⁰⁶

Galileo has undergone various delays and a number of changes of direction over the last years, most notably discarding for the time being the Public Private Partnership (PPP) approach in financing, building, and operating the system. The EU Council of Ministers by means of a Resolution of 8 June 2007 unequivocally concludes in this regard “that the current concession negotiations have failed and should be ended.”¹⁰⁷ However, the Resolution, as well as ensuing political discussions within Europe at the highest level, left little doubt that the European stakeholders are determined to make Galileo happen and to replace the private investments that are now no longer expected with public investments one way or another; indeed, public investment has been achieved through the transfer of unused Common Agricultural Funds.¹⁰⁸ The most recent result of that determination so far

has been Regulation 683/2008 on the further implementation of EGNOS (the regional forerunner to Galileo currently operational) and Galileo itself. By now, two test satellites are operational: the GIOVE-A, built by Surrey Satellite Technology, launched December 2005, and the GIOVE-B, built by Galileo Industries and launched April 2008.¹⁰⁹

From several perspectives, including the geopolitical one, Galileo is a major success already prior to its proper deployment. Ever since the People’s Republic of China (PRC) became the first non-European partner to join the project at the highest level,¹¹⁰ many such states have expressed their interest in doing so and some concluded similar agreements.¹¹¹ Though, with the transition from the Galileo Joint Undertaking (GJU) to the European GNSS [Global Navigation Satellite System] Supervisory Authority, as well as the funding problems, these cooperative developments have largely stalled, in the case of the PRC even leading to a severe curtailing of the actual level of cooperation.¹¹²

Such involvement of non-EU, largely non-European, countries had for the first time raised major issues related to European security issues, which the Commission had to cope with. Notably, the Cooperation Agreement with the PRC specifically did not

¹⁰⁶The COSPAS-SARSAT currently is a four-state satellite system available to aircraft, ships, other vehicles, and persons in distress for the purpose of sending emergency signals and alerting rescue services; see *International COSPAS-SARSAT Program Agreement*, entered into force on 30 August 1988.

¹⁰⁷Item 2, Council Resolution on GALILEO, 2805th Transport, Telecommunications, and Energy Council Meeting, Luxembourg, 6-8 June 2007.

¹⁰⁸Items 4-7, Council Resolution on GALILEO, 2805th Transport, Telecommunications and Energy Council Meeting, Luxembourg, 6-8 June 2007; respectively Council of the European Union, 2828th Council Meeting, Economic, and Financial Affairs, Brussels, 13 November 2007, 14534/07 (Presse 251), at 18.

¹⁰⁹The first four in-orbit validation phase satellites for Galileo are planned for launch by November 2010.

¹¹⁰By becoming a member of the Galileo Joint Undertaking (GJU), the precursor to the European GNSS Supervisory Authority (GSA); see Cooperation Agreement on a Civil Global Navigation Satellite System (GNSS) – Galileo between the European Community and its Member States and the People’s Republic of China, of 30 October 2003; Doc. Council of the European Union, 13324/03.

¹¹¹For example; see Cooperation Agreement on a Civil Global Navigation Satellite System (GNSS) between the European Community and its Member States and the State of Israel, of 2 June 2005.

¹¹²*Space News* 12 June 2006.

include access by the PRC to the PRS.¹¹³ The PRS is the Galileo-service most akin to the GPS Precise Positioning Signal. PRS will be encrypted and physically protected, and only accessible to a limited group of users – in principle all governmental organs, some hybrid service providers in areas key to modern society, and also in terms of security, such as energy and telecommunications networks.

Also, the Agreement with the PRC touched upon the issue of export control of security-sensitive space hardware and technology in the context of Galileo cooperation. It notably provided that “Exports by China to third countries of sensitive items related to the Galileo program will have to be submitted for prior authorization by the competent Galileo security authority, if the authority has recommended to the EU Member States that these items be subject to export authorization.”¹¹⁴ In any event, parties reserved the right to apply applicable laws and regulations in the context of EU-PRC cooperation on Galileo as a safety precaution in case key security issues would be perceived to be at stake.¹¹⁵ Regulation 683/2008, the currently ruling legal document on Galileo, provides on this issue that any additional contributions by member states, third states, or intergovernmental organizations can only be arranged subject to dedicated agreements, allowing a similar degree of control over security matters.¹¹⁶

Being developed under EU leadership, with ESA as developer and procuring agency, the

Regulation further outlines the envisaged approach to Galileo, including the system of governance that should apply to the operational phase. Important for our current topic is that the European GNSS Supervisory Authority, established by Regulation 1321/2004, is to fulfill the key role *inter alia* in security accreditation and operation of the Galileo security center.¹¹⁷ In this respect, the Supervisory Authority will operate under the umbrella of the Commission, which takes it upon itself to “manage all questions relating to the security of the systems, duly taking into account the need for oversight and integration of security requirements in the overall programs.”¹¹⁸

As already has become clear, and in spite of the civil governance structure to be developed for Galileo, security issues will have to be faced. Firstly, the possibility of potential adversary use of its signals would still have to be dealt with; someone has to take decisions, in the worst case, to effectively shut down parts of the system, when Galileo signals threaten to be used by states or non-state actors against the security interests of Europe and European states.¹¹⁹

Secondly, as referred to before, the envisaged PRS, while painstakingly avoiding any reference to military or defense, was modeled in many respects on the GPS Precise Positioning Signal. Whilst the PRS is officially to be made accessible to all

¹¹³On the other hand, see Article 4(2), *Cooperation Agreement on a Civil Global Navigation Satellite System (GNSS) – Galileo between the European Community and its Member States and the People’s Republic of China*.

¹¹⁴*Ibid.*, Article 8(4).

¹¹⁵*Ibid.*, Article 5(1).

¹¹⁶See Articles 4(4), (5), and 6(3) and (4), Regulation 683/2008.

¹¹⁷See Article 16, Regulation 683/2008.

¹¹⁸*Ibid.*, Article 13(1). See further Article 13(2)-(5), as well as Article 14 on the general governance of Galileo for security purposes.

¹¹⁹This was essentially taken care of by involving a “Galileo security center” in the overall governance scheme for the Galileo system, as well as specific security-related regulations; see 16th preamble paragraph, Articles 7, 13, 14, and 16, Regulation 683/2008; also see Council Joint Action on aspects of the operation of the European satellite radio-navigation system affecting the security of the European Union, 2004/552/CFSP, of 12 July 2004.

governmental services, debate has already arisen about whether such governmental uses should not also include the use by the military of respective member states. To those familiar with Western political history over the last half century, it will come as no surprise that France is most adamant in seeing no obstacle to such use, whereas the United Kingdom, at least until recently, was most adamant in emphasizing that such military uses were never contemplated, and should not be contemplated, or at least be vigorously pursued, now.

The other flagship project, GMES, is of more recent date, and consequently has not yet evolved to such an extent as Galileo, in particular, as relevant to the present discussion, in terms of an attendant legal and governance framework to handle to security aspects.¹²⁰ At the same time, it now seems certain, with the launch of the Sentinel 1 satellite for GMES scheduled for 2011 (the first Earth observation satellite for GMES) that it will actually precede an operational Galileo system to space. GMES is to become the pan-European contribution to the Global Earth Observation System of Systems (GEOSS), representing a global effort to enhance environmental protection with the help of satellite technology.

Nonetheless, GMES represents the next step for space security issues in Europe since this project for the first time did prominently refer to the concept of security – interestingly, in the process extending its scope, as GMES was originally meant to stand for Global Monitoring for Environmental Security,

before the latter part was changed to Environment and Security. Security as understood here gradually came to be interpreted beyond the concept of “civil security” so as to encompass more “traditional” military and defense issues of security.¹²¹

GMES, being tasked to provide Europe with its own independent and comprehensive satellite Earth observation infrastructure for generation of data and information on a comprehensive range of subjects, will bring the inclusion of defense, security, and military matters into the broader civil European governance structures. Like Galileo, this impacts both the EU and ESA in terms of their traditional domain having explicitly excluded military, defense, and security issues. Establishment of a coherent SSA flagship project will no doubt move such developments one step further again.

The Treaty of Lisbon

The developments regarding the increasing involvement of the EU in the space security domain are converging with the latest European achievement, which is the entry into force of the Treaty of Lisbon as of 1 December 2009. The increasing growth of the Union – adding twelve new member states in the time span of a mere three years (2004–2007) – was calling for a further rationalization of the governance structure, where a Commission having at least one Commissioner of every member state and the possibilities for small numbers of member states to block legislative development in the Council were threatening to make further

¹²⁰See further Council Resolution on the launch of the initial period of global monitoring for environment and security (GMES), of 13 November 2001; Communication from the Commission to the European Parliament and the Council – Global Monitoring for Environment and Security (GMES): Establishing a GMES capacity by 2008, COM(2004) 65 final, of 3 February 2004.

¹²¹See further on this Frans von der Dunk, “A European “Equivalent” to United States Export Controls: European Law on the Control of International Trade in Dual-Use Space Technologies,” *Astropolitics* 7 (2009).

progress of the Union as a whole increasingly difficult. Also, the calls for more involvement at a European level in global issues of sustainable development, poverty, climate change, and last, but not least, the new security issues and a consequent revival of ideas to extend the scope of supranational policy-making and law-making did not go unheard.

As mentioned, the first effort after the Treaty of Nice of 2001 to take a step forward in European integration was the Treaty establishing a Constitution for Europe agreed upon in Rome in 2004 – but this effort failed. This was not in the least because the inclusion of the word “Constitution,” and its presumed corollaries of a “European anthem” and an official “European flag” as symbols of the perceived ambition to create a European “super-state” with certain democratic *lacunae*, triggered nationalist sentiments sufficiently to make the treaty fail in the referenda held in France and the Netherlands. An additional factor blocking the required EU-wide acceptance was the rather unwieldy and “juridical-technical” nature of the document that the combination of the various updating treaties with particular the original EC Treaty had become.

While the Treaty of Lisbon, to many a scaled-down and more realistic version of the Treaty establishing a Constitution for Europe, took close to two years between acceptance of the final text and entry into force,¹²² in the end it did succeed in becoming the key document

underlying the European Union. Among many other things, it also tried to further enhance the position of Europe as an entity in its own right in space and security, and consequently the space security domain.

The Treaty of Lisbon and Security

As far as the security-side to the equation is concerned, at least the principle of “security” was partially transferred from the Treaty on European Union to the Treaty on the Functioning of the European Union, and included a reference to “defense” at the same time. The first treaty was the one document part of the Treaty of Lisbon where the EC legal order and the key roles of Commission, Parliament, and Court were not engaged; the other, effectively the old EC Treaty as amended by the Treaty of Lisbon, was the second such document where EC law and Commission, Parliament, and Court competencies did apply.

So, in matters of security, now “The Union shall have competence, in accordance with the provisions of the Treaty on European Union, to define and implement a common foreign and security policy, including the progressive framing of a common defense policy.”¹²³ However, the actual implementation of such policies refers back to the Treaty on European Union, to wit its second pillar where the intergovernmental structures reside. Also, Article 4 of the Treaty on the Functioning of the European Union makes reference to shared competence between the Union and EU member states in the “area of freedom, security, and justice.”¹²⁴ Note, that “security” is inserted in the text between “freedom” and “justice,” whereby the term “security” may

¹²²The Treaty of Lisbon was voted down in Ireland by a referendum the first time around, and managed a favorable vote the second time only after considerable wheeling and dealing and a number of cosmetic changes; and even after the Treaty had passed that hurdle, in particular Poland and the Czech Republic were serious candidates to block the entry into force of the Treaty – acceptance of the Treaty of Lisbon, as of any other fundamental treaty in the EC and EU context, had to be unanimous as between the twenty-seven member states in order to lead to entry into force.

¹²³Article 2(4), Treaty on the Functioning of the European Union.

¹²⁴*Ibid.*, Article 4(2.j).

arguably be somewhat confined to civil security.

What the actual effect will be of this partial “transfer” of the security domain into the Treaty on the Functioning of the European Union, will depend on the future usage that the Union’s institutions may seek to make of these clauses. On one hand, the shared competence of Article 4(2) essentially means that “the member states can in principle only exercise their competences to the extent that the Union has not exercised its competence,”¹²⁵ which in turn means the Union’s institutions can, following Article 288 of the Treaty on the Functioning of the European Union, adopt Regulations, Directives, and Decisions.

On the other hand, Article 2(4) ensures that any action of the Union in this domain will have to follow the rules of the Treaty on European Union in its version as consolidated by the Treaty of Lisbon. Here, the Union may now “define and pursue common policies and actions” among others to “safeguard its values, fundamental interests, security, independence and integrity; ... preserve peace, prevent conflicts, and strengthen international security in accordance with the purposes and principles of the United Nations Charter, with the principles of the Helsinki Final Act, and with the aims of the Charter of Paris, including those relating to external borders,” objects clearly at least potentially involving security, including military decisions.¹²⁶ To what extent such policies and actions may comprise juridical or legislative action, and also to what extent such policies would essentially remain an empty shell

without actual follow-on juridical or legislative action, may be disputed, but in principle these would not be subject to the democratic controls of the European Parliament, and therefore remain within the exclusive domain of democratic controls of relevant national parliaments, and by the same token would fall outside the jurisdiction of the Court of Justice.

Furthermore, it is the European Council, a special version of the Council of Ministers comprising the Heads of State of the member states, hence still first and foremost representing their individual member states’ interests,¹²⁷ which shall now, further to Article 21 of the consolidated Treaty on European

...at least the principle of “security” was partially transferred from the Treaty on European Union to the Treaty on the Functioning of the European Union...

Union, identify the strategic interests and objectives of the Union and take relevant decisions by unanimity, *inter alia* in the area of common foreign and security policy.¹²⁸ The role of the Commission is limited to the right to propose external actions other than those for the area of common foreign and

security policy, which is the domain of the occupant of the newly created High Representative for Foreign Affairs and Security Policy, a special official which is, although Vice-President of the Commission, directly appointed by the European Council.¹²⁹

¹²⁵Stephen Hobe, *et al*, A New Chapter for Europe in Space,” *Zeitschrift für Luft- und Weltraumrecht* I: 54 (2005), 347.

¹²⁶Article 21(2), Treaty on European Union as amended by the Treaty of Lisbon amending the Treaty on European Union and the Treaty Establishing the European Community (hereafter Consolidated Version of the Treaty on European Union), Lisbon, entered into force 1 December 2009.

¹²⁷See further Articles 235-236, Treaty on the Functioning of the European Union.

¹²⁸See Article 22(1), Consolidated Version of the Treaty on European Union.

¹²⁹See *Ibid.*, Articles 18(1) and (2), and 22(2); further Article 30.

Article 24(1) of the consolidated version of the Treaty on European Union echoes the aforementioned provision of Article 2(4) of the Treaty on the Functioning of the European Union, in allotting to the Union “all areas of foreign policy and all questions relating to the Union’s security, including the progressive framing of a common defense policy.” This common foreign security policy, however, is subject to specific rules and procedures, requiring unanimous agreement by the European Council and alternatively the Council of Ministers, but “the adoption of legislative acts shall be excluded” and (with one exception not relevant here) “the Court of Justice of the European Union shall not have jurisdiction with respect to these provisions.”¹³⁰

In sum, in all of Title V of the consolidated version of the Treaty on European Union, entitled “General Provisions on the Union’s External Action and Specific Provisions on the Common Foreign and Security Policy” and comprising Articles 21 through 46, the Commission is referred to no more than eight times, in a manner that can be described as being on the fringe of the actual decision-making processes. From the same perspective, the European Parliament is referred to a mere seven times, the Court of Justice of the European Union exactly once. By contrast, the European Council has been mentioned 19 times, the Council of Ministers as such no less than 74 times, and the term “Member States” occurs 58 times in this Title. There is no better way to directly visualize the different roles of the first three, the “truly European institutions,” as compared with the latter two institutions where the individual member states’ interests are most prominently defended, in the context of security under the Common Foreign and Security Policy.

It remains to be seen how the political landscape, both within the European Union itself and from a more geopolitical perspective, will evolve and whether this might, under certain circumstances, allow for an increasingly larger role for the EU institutions in security issues.

The Treaty of Lisbon and Space

In regard to outer space, the Treaty of Lisbon was hoped for to present at least a courageous step forward. When its failed predecessor, the Treaty Establishing a Constitution for Europe, was being negotiated and drafted, it had included two novel provisions offering a key to considerably enlarging Europe’s role in space.

Firstly, that Treaty provided in Article I-14 that “In the areas of research, technological development, and space, the Union shall have competence to carry out activities, in particular to define and implement programs; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs.”¹³¹ This clause was part of the Article providing for the scope of shared competence between the Union and its member states, but the last part has led commentators to conclude that this was not so much a normal shared competence, but rather a “parallel competence.”¹³² In other words, individual member states would retain sovereign discretion to draft and implement their own national policies and legislation in this area.

¹³¹Article I-14(3), Treaty Establishing a Constitution for Europe.

¹³²Stephen Hobe, *et al.*, “A New Chapter for Europe in Space,” *Zeitschrift für Luft- und Weltraumrecht* I: 54 (2005), 346-347.

¹³⁰*Ibid.*, Article 24(1). See further Articles 28 and 31.

Secondly, specifically on space it was provided:

1. To promote scientific and technical progress, industrial competitiveness, and the implementation of its policies, the Union shall draw up a European space policy. To this end, it may promote joint initiatives, support research and technological development, and coordinate the efforts needed for the exploration and exploitation of space.
2. To contribute to attaining the objectives referred to in paragraph 1, European laws or framework laws shall establish the necessary measures, which may take the form of a European space program.
3. The Union shall establish any appropriate relations with the European Space Agency.¹³³

By many, this was considered to represent the first true acceptance of a competence in space for the Union, even if only shared or parallel. This, however, overlooked the fact that already since 1994, with the adoption of the Satellite Directive,¹³⁴ the Union had exercised a fundamental competence to regulate satellite communications as part of the broader telecommunications sector in the context of the European Internal Market. From that moment on, for example, the Commission had adopted more Regulations, Directives, and Decisions to deal with specific aspects of commercial satellite communications¹³⁵ and

had handed down Decisions enforcing the general competition regime in the sector.¹³⁶ It also overlooked a similar regulatory involvement in the satellite navigation area, beginning with the Regulation setting up the Galileo Joint Undertaking in 2002.¹³⁷

More precisely, therefore, entry into force of the Treaty Establishing a Constitution for Europe would have meant a first comprehensive competence in terms of scope, not being indirectly deduced from competencies in telecommunication and transport fields (e.g., note that Galileo was presented first and foremost as a tool for trans-European transport networks, and still essentially resides with the Commission's Directorate on Transport and Energy). This

¹³³Article III-254, Treaty establishing a Constitution for Europe.

¹³⁴Commission Directive amending Directive 88/301/EEC and Directive 90/388/EEC, in particular with regard to satellite communications, 94/46/EC, of 13 October 1994.

¹³⁵For example: Commission Directive amending Directive 90/387/EEC with regard to personal and mobile communications, 96/2/EC, of 16 January 1996; Commission Directive amending Directive 90/388/EEC with regard to the implementation of full competition in telecommunications markets, 96/19/EC, of 13 March 1996; Decision of the European Parliament and of the Council on a coordinated authorization approach in the field of satellite personal communications systems in the Community, No. 710/97/EC,

of 24 March 1997; Directive of the European Parliament and of the Council on a common framework for general authorizations and individual licenses in the field of telecommunications services, 97/13/EC, of 10 April 1997; Decision of the European Parliament and of the Council on the selection and authorization of systems providing mobile satellite services (MSS); No. 626/2008/EC, of 30 June 2008.

¹³⁶For example: Commission Decision relating to a proceeding pursuant to Article 85 of the EC Treaty and Article 53 of the EEA Agreement (IV/34.768 – International Private Satellite Partners), No. 94/895/EC, of 15 December 1994; Commission Decision declaring a concentration to be incompatible with the common market and the functioning of the EEA Agreement (IV/M.490 – Nordic Satellite Distribution), No. 96/177/EC, of 19 July 1995; Commission Decision relating to a proceeding under Article 85 of the EC Treaty and Article 53 of the EEA Agreement (IV/35.518 – Iridium), No. 97/39/EC, of 18 December 1996; Commission Decision declaring a concentration to be compatible with the common market according to Council Regulation (EEC) No 4064/89 (IV/M.1564 – Astrolink), of 25 June 1999; Commission Decision declaring a concentration to be compatible with the common market according to Council Regulation (EEC) No 4064/89 (IV/M.4465 – Thrane and Thrane/Nera), of 21 March 2007; Commission Decision declaring a concentration to be compatible with the common market and the EEA Agreement (COMP/M.4403 – Thales/Finmeccanica/Alcatel Alenia Space & Telespazio), of 4 April 2007; Commission Decision declaring a concentration to be compatible with the common market according to Council Regulation (EEC) No 4064/89 (IV/M.4709 – Apax Partners/Telenor Satellite Services), of 20 August 2007,

¹³⁷Council Regulation setting up the Galileo Joint Undertaking, No. 876/2002/EC, of 21 May 2002.

was not generally considered to be subject to dispute, and even as the Treaty Establishing a Constitution for Europe was running into trouble, this clause was expected to survive.¹³⁸

As it turned out, by way of an unpleasant surprise for the supporters of European space cooperation, the Treaty of Lisbon did take one fundamental step backwards here. The Treaty on the Functioning of the European Union as per the Treaty of Lisbon in relevant part firstly faithfully copies Article I-14 of the Treaty Establishing a Constitution for Europe that was stated above.¹³⁹

Secondly, however, the Treaty now provides:

1. To promote scientific and technical progress, industrial competitiveness, and the implementation of its policies, the Union shall draw up a European space policy. To this end, it may promote joint initiatives, support research and technological development, and coordinate the efforts needed for the exploration and exploitation of space.
2. To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the necessary measures, which may take the form of a European space program, excluding any harmonization of the laws and regulations of the Member States.
3. The Union shall establish any appropriate relations with the European Space Agency.
4. This Article shall be without prejudice to the other provisions of this Title.¹⁴⁰

Note that paragraphs 1 and 3 are identical to paragraphs 1 and 3 of Article III-254 of the Treaty Establishing a Constitution for Europe, and that paragraph 4, though not present in the latter, does only confirm the default relationship. Thus, paragraph 2 is the key difference here.

First, it replaces the reference to European laws and framework laws (the new names proposed by the Treaty Establishing a Constitution for Europe for Regulations and Directives) with a more complicated formula, which in essence still refers to EC secondary law.¹⁴¹ Second, a clause is now added excluding from any such EU competence the possibility to use Regulations, Directives, or Decisions for the purpose of harmonizing laws and regulations of EU member states. Consequently, the EU competence on space is now limited to adopting secondary EU law that either (1) establishes a space project or space program and presumably takes care of its financing through EU budgets, or (2) applies the freedoms of movement of goods, services, persons and capital as well as the competition regime to the space sector, as the remaining key pillars of the Internal Market not covered by the last clause of paragraph 2.

With regard to the latter, moreover, with the exception of areas of satellite telecommunications and satellite navigation where the leadership role of the Commission and also in the legislative domain is generally accepted and already has led to secondary EU law being adopted, actual adoption of Regulations, Directives, or Decisions may run into problems. Any existence of member state regulation on any such topic – as part of the exercise of member state competence, left

¹³⁸Stephen Hobe, *et al*, “A New Chapter for Europe in Space,” *Zeitschrift für Luft- und Weltraumrecht* I: 54 (2005), 346.

¹³⁹Article 4(3), Treaty on the Functioning of the European Union.

¹⁴⁰*Ibid.*, Article 189.

¹⁴¹The “ordinary legislative procedure” referred to here is described as “the joint adoption by the European Parliament and the Council of a regulation, directive or decision on a proposal from the Commission.” See *Ibid.*, Article 289(1) and Article 294.

unhampered under Article 4(3) of the Treaty on the Functioning of the European Union – might be expected either to exclude *ipso facto* a right for the EU institutions to adopt secondary EU law, or lead to sufficient opposition in the Council to preclude such adoption in practice.

Still, the combined force of existing competencies in the satellite communication and satellite navigation fields, the clauses of the Treaty on the Functioning of the European Union, and the subsidiarity principle vis-à-vis the inherently global domain of outer space may well lead to increasing activity of the EU institutions in the space domain. Once the Council would be convinced that it is in the overarching interest to do so, the framework briefly outlined above certainly would allow this to happen.

Conclusions

From the above analyses of the often painstaking and complicated processes of European integration, it may be concluded that the involvement of key intergovernmental entities in Europe, including the European Union and ESA, in space security is rapidly evolving at least on a political and visibility level, even as such involvement is crucially shaped by the institutional structures and the roles of the member states in delineating relevant competencies. The outside reality that space activities are almost always inherently security-sensitive or even simply developed from security needs has caught up with the principled prohibition in the relevant documents (for the European Union at least until the Treaty on European Union) to become fundamentally involved in security issues. The European flagship projects, Galileo and GMES, may be seen as clear indicators that indeed a gradual acceptance of the inevitability of involvement of the Union

and the Agency into the field of space security has started to occur.

This process so far has been largely an indirect one, bringing many factors together – the increasing entanglement, even convergence, of ESA and the EU, the gradual swallowing of the WEU by the latter (where perhaps that process is most advanced with respect to the space part of the WEU), the double perspective of security and space from which the Union is addressing space security, the joint development of the flagship projects, the specific focus on international trade in and exports of security-sensitive technology, and trying to cope with potential Internal Market-distorting consequences of national licensing regimes on export control. The process is further driven by the political will of the Union to be in Europe's driver's seat with regard to global developments, such as concerning the Wassenaar Arrangement and the MTCR, but also Space Situational Awareness and other space security-related issues.

The failed Treaty Establishing a Constitution for Europe and the successful Treaty of Lisbon from that perspective together represented the extent to which the EU and its leading institutions, first of all the Commission, were able to move along that path so far, and establish a first measure of legislative and regulatory coherence on the European front. The results, as analyzed, are rather mixed and certainly do not overcome many of the complications, sometimes perhaps even inconsistencies, arising as a result from the manifold angles from which issues of space security are addressed in Europe.

For example, in spite of the increasing cooperation of the Union and ESA in matters of space policy, and now even projects, a full-fledged integration of ESA into the Union

does not seem to be plausible for now. Issues, such as the conflicting approach to the financing of space industry in the context of European space projects, with ESA largely still forced to adhere to the “fair return” concept and the Union insisting on open and competitive procurement, will therefore continue to require ad-hoc solutions, as was achieved for example for Galileo. In that sense, institutionally speaking, Europe has not yet moved fundamentally beyond the Framework Agreement. This is not to diminish the value and importance of what has been achieved.

To paraphrase the most famous quote in space history, it may not be the giant leap hoped for, but it is a small step forward opening up the prospect of more steps in the same direction. Security is also high on the agenda in Europe, space is increasingly playing an indispensable role in that context, and the flagship projects may well turn out to prove that the best way to deal with these issues would be by allowing more space for integrated decision-making at a European level, in which case both the European Union and ESA will be indispensable players – or at the very least indispensable vehicles for the sovereign member states to ensure their individual interests would not unduly obstruct the overarching European interests in security, space, and in space security.